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(54) **COUPLING DEVICE**

(57) Coupling device (1) for a pipe (2), comprising a sleeve (13) for receiving the pipe (2) and at least one sealing member (5) to provide a seal between the sleeve (13) and the pipe (2), a pressure member (6) for applying a pressure to the sleeve (13) and to the pipe (2), and a grip element (4) extending along at least a part of the

perimeter of the pipe (2), wherein the grip element (4) is provided with dents (9) pressed out of the plane of the grip element (4) adjacent to slit like openings (8) punched out of the grip element (4), wherein edges (8') of the slit like openings (8) are subjected to a peening operation.

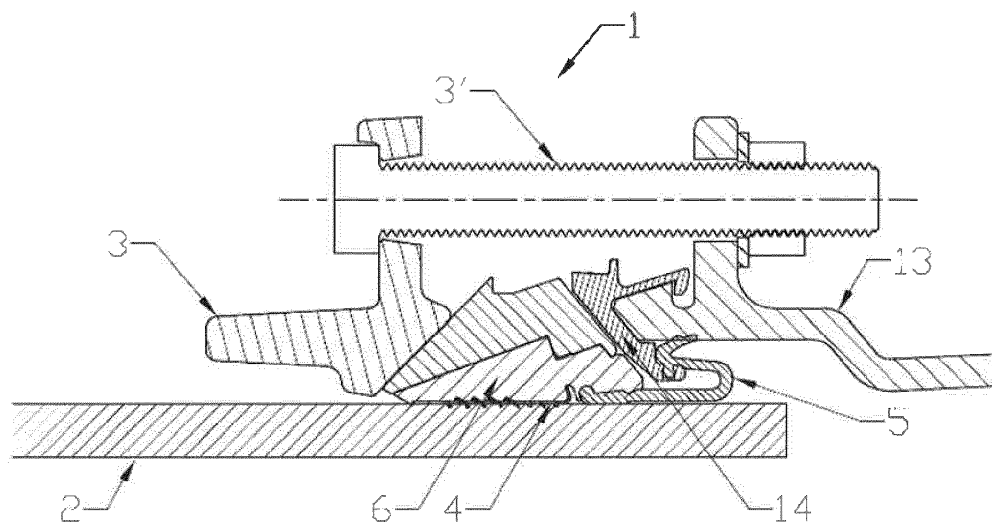


FIG. 1



## EUROPEAN SEARCH REPORT

Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	* abstract; figures * * page 2, line 37 - page 3, line 21 * * page 4, line 35 - page 5, line 20 *	4,5	
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A	* abstract; figures * * paragraphs [0012], [0013] *	4,5	
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A	* abstract; figures * * page 21, line 34 - page 22, line 15; figures 3A-3C *	4,5	TECHNICAL FIELDS SEARCHED (IPC)
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<p>1 <del>The present search report has been drawn up for all claims</del></p>			
Place of search <b>Munich</b>		Date of completion of the search <b>18 March 2019</b>	Examiner <b>Untermann, Nils</b>
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)



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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-3, 6-9(completely); 4, 5(partially)

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION**  
**SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3, 6-9(completely); 4, 5(partially)

coupling device with a grip element wherein edges of a slit-like opening are subjected to a peening operation, claims 4 and 5 in the variant according to any one of claims 1-3

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2. claims: 4, 5(partially)

coupling device in the variant according to the preamble of claim 1, wherein each grip element is supported by at least one pressure member, which pressure member is provided with protrusions that mate with the back of the dents that are pressed out of the plane of the corresponding grip element that is mounted on such pressure member

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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